

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Kenneth Eiferman (Reg. No. 51,647) on April 21, 2009.

2. The application has been amended as follows:

Claim 1. (Currently Amended) A method of enabling a first system to use a second system comprising:

receiving at least one data declaration pertaining to the first system;

generating an interoperability information for the first and the second systems comprising:

an interface definition language ("IDL") description of a portion of code on the first system for interacting with the second system;

at least one class definition pertaining to the at least one data declaration of the first system;

storing the interoperability information;

receiving at the first system, a first request directed to the second system, said first request being in a form adapted for the first system but not for the second system;

performing a first conversion of said first request to produce a second request using the interoperability information, said second request being in a form adapted for said second system but not for said first system, said first conversion performed using a host initiated processing (HIP) system that includes one or more listeners for receiving the first request and one or more HIP proxies for instantiating at least one flow control, each of the at least one flow control associated with a respective requesting port, for the first conversion, the number of listeners and the HIP proxies to use in the first conversion is determined by an HIP runtime service based on pre-stored configuration information, the HIP system further including a first object to read conversion information from a file that explains how to translate data types from the first system to the second system to a particular flow control and a second object to access end-to-end mapping information from the file to a particular flow control;

invoking ~~the~~ a processing of said second request by the second system;

receiving a first reply from the second system, said first reply comprising an FMH7 field, said FMH7 field containing error information;

performing a second conversion of said first reply using the interoperability information to produce a second reply that comprises header information that is usable with an Internet protocol and that represents said error information contained in said FMH7 field ~~into header information usable with an Internet protocol~~; and

providing said second reply to said first system.

Claim 14. (Currently Amended) A method of enabling a first software object in a first system to call a second software object in a second system, the method comprising:

evaluating first information that the first software object exposes when making a call to a remote system;

evaluating second information that the second software object exposes when receiving a call from a remote system;

receiving at least one data declaration pertaining to the first system;

generating an interoperability information for the first and the second systems comprising:

an interface definition language ("IDL") description of a portion of code on the first system for interacting with the second system;

at least one class definition pertaining to the at least one data declaration of the first system;

storing the interoperability information;

generating a conversion information using the interoperability information and the first and second information descriptive of a process to be followed in order to convert the first information into a form compatible with the second information, said conversion information describing [[the]] a conversion of an FMH7 field into header information usable with an Internet protocol;

providing the conversion information to a conversion service that uses the conversion information to convert a first call from the first object into a second call in a form usable by the second object, said conversion service using a host initiated processing (HIP) system that includes one or more listeners for receiving the first request and one or more HIP proxies that

handle flow control for instantiating at least one flow control, each of the at least one flow control associated with a respective requesting port, for the first conversion, the number of listeners and HIP proxies to use in the first conversion is determined by an HIP runtime service based on pre-stored configuration information, the HIP system further including a first object to read conversion information from a file that explains how to translate data types from the first system to the second system to a particular flow control and a second object to access end-to-end mapping information from the file to a particular flow control.

Claim 23. (Currently Amended) A system to enable a first software object in a first environment to call a second software object in a second environment, the system comprising:

hardware comprising at least one processor;

a component builder module that operates on said hardware, said component builder:

receiving at least one data declaration pertaining to the first system;

generating an interoperability information for the first and the second systems comprising:

an interface definition language (“IDL”) description of a portion of code on the first system for interacting with the second system;

at least one class definition pertaining to the at least one data declaration of the first system;

storing the interoperability information;

a service object that executes on said hardware and that receives a first request from the first software object, converts the first request into a second request which is in a form usable by the second software object, and presents the second request to the second software object using the interoperability information;

a host initiated processing (HIP) system that includes one or more listeners for receiving the first request and one or more HIP proxies ~~that handle flow control for instantiating at least one flow control, each of the at least one flow control associated with a respective requesting port, for the conversion~~, the number of listeners and HIP proxies to use[[d]] is determined by an HIP runtime service based on pre-stored configuration information, the HIP system further including a first object to read conversion information from a file having transaction integrator metadata extension (.TIM file) that explains how to translate data types from the first system to the second system to a particular flow control and a second object to access end-to-end mapping information from the .TIM file to a particular flow control, the HIP system further including first and second conversion components, the first conversion component handling conversion issues related to aggregate data types and the second conversion component handling conversion[[s]] issues related to primitive data types; and

an error handling object that executes on said hardware and that receives an indication of an error from the second software object and packages the error into a form usable by the first environment or the first software object, wherein the indication of said error comprises an FMH7 field, and wherein said error handling object creates header information representative of the contents of said FMH7 field, said header information being adapted for use with an Internet protocol.

Claim 32. (Currently Amended) A computer-readable storage medium encoded with computer-executable instructions to facilitate interoperability between a first system and a second system, the instructions being adapted to perform acts comprising:

receiving at least one data declaration pertaining to the first system;

generating an interoperability information for the first and the second systems comprising:

an interface definition language ("IDL") description of a portion of code on the first system for interacting with the second system;

at least one class definition pertaining to the at least one data declaration of the first system;

storing the interoperability information;

receiving a first call from a first software object in the first system to a second software object in the second system, the first call being in a format that is not compatible with the second system;

converting the first call into a second call using the interoperability information, the second call being in a format that is compatible with the second system, said converting performed using a host initiated processing (HIP) system that includes one or more listeners for receiving the first request and one or more HIP proxies that handle flow control for instantiating at least one flow control, each of the at least one flow control associated with a respective requesting port, for the first conversion, the number of listeners and HIP proxies to use in the

first conversion is determined by an HIP runtime service based on pre-stored configuration information, the HIP system further including a first object to read conversion information from a file that explains how to translate data types from the first system to the second system to a particular flow control and a second object to access end-to-end mapping information from the file to a particular flow control, the HIP system further including first and second conversion components, the first conversion component handling conversion issues related to aggregate data types and the second conversion component handling conversion[[s]] issues related to primitive data types;

converting an FMH7 field generated by said first system into header information usable by an Internet protocol;

invoking the second software object using the second call;

listening for a connection from the first system; and

receiving information related to the first call in response to the connection, wherein the first call comprises data in a first form; and

converting the data from the first form into a second form usable by the second software object.

3. The drawings are accepted.

4. The following is an examiner's statement of reasons for allowance:

As to claims 1-11, 14-20, 23-29, 32 and 35-36, the prior art of record does not teach or render obvious the limitations recited in claims 1, 14, 23 and 32, when taken in the context of the

claims as a whole, specific to generating an interoperability information for the first and the second system comprising: an interface definition language description of a portion of code on the first system for interacting with the second system and at least one class definition pertaining to the at least one data declaration of the first system, convert a first request from a first format receiving at the first system, the first request directed to the second system, to a second request in the second format adapted for the second system using the interoperability information, the conversion using a host initiated processing system (HIP) that includes one or more listeners for receiving the first request, and one or more proxies for instantiating at least one flow control for the conversion, wherein each of the at least one flow control associated with a respective requesting port, the HIP including a first object to read conversion information from a file that explains how to translate data types from the first system to the second system to a particular flow control, and a second object to access end-to-end mapping information from the file to a particular flow control, and transforming the reply from the second system to a format for the first system using the interoperability information, the reply also includes an error information field.

Moreover, evidence for modifying the prior art teachings by one of ordinary skill level in the art was not uncovered so as to result in the invention as recited in claims 1, 14, 23 and 32.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEM K. CAO whose telephone number is (571)272-3760. The examiner can normally be reached on Monday - Friday, 7:30AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diem Ky Cao/
Primary Examiner

DC
April 23, 2009